

REMARKS

This letter is in response to the examiner's office action dated November 21, 2002. In the office action, the examiner: (1) objected to the drawings as not including the reference signs included in the specification; and (2) rejected Claims 1-4 under 35 USC § 102 (b).

Applicant is submitting in this response: (1) amendments to the specification; (2) cancellation of Claims 1-4; (3) addition of Claims 5-12; (4) remarks regarding the objection to the drawings; and (5) remarks regarding the 35 USC § 102(b) rejection.

Drawings Objection

Applicant respectfully requests reconsideration of the examiner's objection to the drawings. In the amendment to the specification the Applicant has removed the reference numerals from the first paragraph of the "Background of the Invention" section so that the drawings now comply with 37 CFR 1.84(p)(5). Applicant respectfully submits that there are no other reference numerals contained in the specification. All remaining numerals in the specification are used either as an adjective to define a quantity within the respective sentence, used to denote a particular size of screen that is known in the art, or used for some purpose other than as a reference numeral.

35 USC §102 (b)

Reconsideration and allowance are respectfully requested of added Claims 5-12, which have been added in place of cancelled Claims 1-4. Claims 1-4 have been rejected under 35 USC § 102(b) as being anticipated by Giguere. MPEP § 706.02(b) states that a 35 USC § 102(b) rejection can be overcome by persuasively arguing that the claims are

patently distinguishable from the prior art reference, and/or by amending the claims to patently distinguish over the prior art. Applicant respectfully submits that Added Claims 5-12 are distinguishable from Giguere.

Invalidity for anticipation requires that all of the elements and limitations of the claim are found within a single prior art reference. Carella v. Starlight Archery and Pro Line Co., 804 F.2d 135, 138, 231 USPQ 644, 646 (Fed.Cir.1986). There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576 (C.A. Fed. 1991).

Applicant respectfully submits that Added independent Claims 5 and 11 are not anticipated by Giguere. The examiner states that the Giguere patent, and particularly Giguere's FIG. 5 (identical to Applicant's FIG. 2 labeled "prior art") "discloses the entire claimed process for processing kernels of grain." However, Applicant's Added Claims 5-12 are distinguishable from the cited prior art. Giguere teaches the removing of grain from the mill stream at certain points in the process. However, in Giguere, this removed grain is *reintroduced* into the mill stream at a later time, and thus desired end product is only completely removed from the mill stream *once*, this removal step occurring only at the end of the process. (See Giguere's FIGS. 5-9). Giguere's FIGS. 5-9 show that fine grain particles (fines) are separated and removed from the mill stream after the Degerminator Sifter; however, these fines are reintroduced into the mill stream and made to be separated again before they are finally removed as finished product. Giguere's removing and subsequent reintroduction of the fines represents a process and

method markedly differing from the process and method reflected in Applicant's Added Claims 5 and 11. Claims 5 and 11 set fourth the step of "removing at least one of said size classes from the mill stream as a desired end product after at least two separation steps." Giguere does not anticipate Applicant's Claims 5 and 11 because in Giguere, desired end product is only completely removed from the mill stream after *one* separation step at the end of the process while Applicant's process employs "at least two separation steps." This is seen in Giguere's FIGS. 5-9 in which all of the flour, for example, is removed from the mill stream only after one final separation step.

Applicant's Claims 5 and 11 are distinct and different because they claim a process and method wherein "at least one of said size classes" (flour for example) is removed as "desired end product after at least *two* separation steps." (emphasis added).

It is noted that Giguere does remove "Feed/Oil Recovery" at different points in the mill stream, however, this does not anticipate Applicant's Added Claims 5 and 11 because "Feed/Oil Recovery" is not considered "desired end product" as it is defined in Applicant's specification. Applicant's specification states that "desired end product" is comprised of grits, meal, flour, and other such grain products. (Specification page 8, line 9-10). Therefore, the removing of "Feed/Oil Recovery" is not the same as removing "desired end product" and Applicant's Added Claims 5 and 11 are distinguishable.

Applicant's Added Claim 8 further distinguishes Applicant's claimed invention over the cited prior art because it claims that "*at least one* of said size classes is removed from the mill stream as the desired end product after *each* separation step." (emphasis

added). This is not taught by Giguere because, as shown by Giguere's FIGS. 5-9, Giguere does not teach removing a grain end product completely from the mill stream after each separation step.

Applicant's Added Claim 9 is distinguished from Giguere for the same reasons as stated above. Added Claim 9 claims that "at least one of said size classes is removed from the mill stream as the desired end product after the first separation step." This first separation step occurs directly after degermination in Giguere's method. In Giguere, the fines are separated and removed after degermination, but they are reintroduced into the mill stream, and therefore are not removed "from the mill stream as desired end product after the first separation step." (Applicant's Claim 9).

Applicant's claimed process continuously removes desired end product from the dry milling operation. Not only does this decrease process costs, but it also allows for the processing of a higher quality of grain. The net result is more control over the production process that produces a desired finished product at lower per unit price.


The remainder of the Added Claims not specifically discussed herein are dependant on claims that have been distinguished from the cited prior art, and therefore they are also distinguished from the cited prior art.

It is submitted that this response places Applicant's application in condition for allowance, and therefore further and favorable action on this application is requested.

Respectfully submitted,

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Ryan N. Carter, Registered Representative

ATTACHMENT A (Clean Copy)

Specification

Please replace the first paragraph of the "Background of the Invention" section of the specification on page 1 lines 1-11 with the following paragraph:

BACKGROUND OF THE INVENTION

A The corn kernel, illustrated in Fig. 1, has a number of components, each being best suited for various uses. The process of modern dry corn milling seeks to segregate and separately process the below-identified parts of a kernel of corn as each part has a separate use. The hard outer shell is called the pericarp or the bran coat. The end of the corn kernel which adheres it to the corn cob is called the tip cap. The interior of the corn kernel consists of the endosperm and the germ. The endosperm is generally broken into two parts: soft endosperm and hard endosperm. For purposes of human consumption, the hard endosperm generally produces grits and corn meal, and the soft endosperm generally produces corn flour. The germ contains a much higher percentage of fat compared to the other parts of the kernel and is the source of corn oil.

On page 3, line 14, please replace the term "Figure 5" with the term "Figure 4" so that the sentence reads: "Figure 4 contains examples of typical prior art roller corrugation configurations."

On page 7, line 23, please amend the sentence as follows: "Fig. 5 is a block diagram of

a³ the short flow grain milling process in a first preferred embodiment."

On page 8, line 1, please amend the sentence as follows: "Fig. 6 is a block diagram of

a⁴ the short flow grain milling process in a second preferred embodiment."

Claims

- Sub B1
- a⁵
5. (Added) A method for processing kernels of grain in a mill stream to produce a desired end product comprising the steps of:
- cleaning the kernels of grain;
 - breaking the kernels of grain into two or more parts;
 - separating the parts according to selected size classes using at least two separation steps;
 - removing at least one of said size classes from the mill stream as the desired end product after at least two separation steps.
6. (Added) The method as described in claim 1 wherein the first separation step comprises a hominy grade sifter which separates the grain using a number 6, 12, 30, and 62 wire mesh screen.
- Sub B1
7. (Added) The method as described in claim 1 wherein the grain is corn.
8. (Added) The method as described in claim 1 wherein at least one of said size classes is removed from the mill stream as the desired end product after each separation step.

9. (Added) The method as described in claim 1 wherein at least one of said size classes is removed from the mill stream as the desired end product after the first separation step.

10. (Added) The method of Claim 1 further comprising the steps of:

diverting one or more of the remaining size classes to a germ oil recovery process;

diverting one or more of the remaining size classes of grain to an aspirator and aspirating said size class of grain;

diverting the aspirated grain to a roller.

11. (Added) A method for processing kernels of grain in a mill stream to produce a desired end product comprising the steps of:

cleaning the kernels of grain;

degerminating the cleaned kernels of grain;

separating the degerminated kernels of grain into selected size classes using at least two separation steps;

breaking the grain further using break rollers in-between separation steps;

removing at least one of said size classes from the mill stream as the desired end product after at least two separation steps to a first location;

diverting the remaining size classes to one or more other locations.

12. (Added) The method of Claim 11 wherein the grain is corn.

ATTACHMENT B (Redline Copy)

Specification

Please replace the first paragraph of the "Background of the Invention" section of the specification on page 1 lines 1-11 with the following paragraph:

BACKGROUND OF THE INVENTION

The corn kernel, illustrated in Fig. 1, has a number of components, each being best suited for various uses. The process of modern dry corn milling seeks to segregate and separately process the below-identified parts of a kernel of corn as each part has a separate use. The hard outer shell 2 is called the pericarp or the bran coat. The end of the corn kernel which adheres it to the corn cob is called the tip cap-4. The interior of the corn kernel consists of the endosperm-6 and the germ-8. The endosperm is generally broken into two parts: soft endosperm-10 and hard endosperm-12. For purposes of human consumption, the hard endosperm generally produces grits and corn meal, and the soft endosperm generally produces corn flour. The germ contains a much higher percentage of fat compared to the other parts of the kernel and is the source of corn oil.

On page 3, line 14, please replace the term "Figure 5" with the term "Figure 4" so that the sentence reads: "Figure 5 4 contains examples of typical prior art roller corrugation configurations."

On page 7, line 23, please amend the sentence as follows: "Fig. 5 is a block diagram of the short flow grain milling process in a first preferred embodiment."

On page 8, line 1, please amend the sentence as follows: "Fig. 6 is a block diagram of the short flow grain milling process in a second preferred embodiment."

Claims

5. (Added) A method for processing kernels of grain in a mill stream to produce a desired end product comprising the steps of:
cleaning the kernels of grain;
breaking the kernels of grain into two or more parts;
separating the parts according to selected size classes using at least two separation steps;
removing at least one of said size classes from the mill stream as the desired end product after at least two separation steps.
6. (Added) The method as described in claim 1 wherein the first separation step comprises a hominy grade sifter which separates the grain using a number 6, 12, 30, and 62 wire mesh screen.
7. (Added) The method as described in claim 1 wherein the grain is corn.

8. (Added) The method as described in claim 1 wherein at least one of said size classes is removed from the mill stream as the desired end product after each separation step.
9. (Added) The method as described in claim 1 wherein at least one of said size classes is removed from the mill stream as the desired end product after the first separation step.
10. (Added) The method of Claim 1 further comprising the steps of:
diverting one or more of the remaining size classes to a germ oil recovery process;
diverting one or more of the remaining size classes of grain to an aspirator and aspirating said size class of grain;
diverting the aspirated grain to a roller.
11. (Added) A method for processing kernels of grain in a mill stream to produce a desired end product comprising the steps of:
cleaning the kernels of grain;
degerminating the cleaned kernels of grain;
separating the degerminated kernels of grain into selected size classes using at least two separation steps;
breaking the grain further using break rollers in-between separation steps;
removing at least one of said size classes from the mill stream as the desired end product after at least two separation steps to a first location;
diverting the remaining size classes to one or more other locations.

12. (Added) The method of Claim 11 wherein the grain is corn.